

Title (en)

FREQUENCY GRADIENT METASURFACE-BASED FAST BEAM STEERING TRANSMISSION METHOD AND APPARATUS FOR OWC

Title (de)

FREQUENZGRADIENTEN-METAOBERFLÄCHENBASIERTES SCHNELLES STRAHLSTEUERUNGSÜBERTRAGUNGSVERFAHREN UND VORRICHTUNG FÜR OWC

Title (fr)

PROCÉDÉ ET APPAREIL DE TRANSMISSION DE DIRECTION À FAISCEAU RAPIDE BASÉ SUR UNE MÉTASURFACE À GRADIENT DE FRÉQUENCE POUR OWC

Publication

EP 4160944 A4 20240228 (EN)

Application

EP 20938160 A 20200528

Priority

KR 2020006895 W 20200528

Abstract (en)

[origin: EP4160944A1] The present specification provides a method and apparatus, the method being for transmitting a beam, performed by the apparatus, in an optical wireless communication system, and comprising: generating a pulse laser signal; making the pulse laser signal to be incident on a metasurface, wherein the beam is generated on the basis that the pulse laser signal is incident on the metasurface; and transmitting the beam to a reception apparatus, wherein the metasurface is determined on the basis of ω_0 , d , $\Delta\omega$, and N , wherein ω_0 is a value of a center frequency, d is a value of a virtual antenna interval, $\Delta\omega$ is a value of a frequency comb interval, and N is a value related to the number of frequency combs present within a gain bandwidth based on the center frequency.

IPC 8 full level

H04B 10/50 (2013.01); **G02B 1/00** (2006.01); **H04B 10/11** (2013.01); **H04B 10/508** (2013.01)

CPC (source: EP KR US)

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Citation (search report)

- [Y] US 2015117808 A1 20150430 - CHEN SHU-LU [TW], et al
- [Y] WO 2016022309 A1 20160211 - NXGEN PARTNERS IP LLC [US]
- See also references of WO 2021241779A1

Designated contracting state (EPC)

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DOCDB simple family (application)

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